REMARKS

Claims 1-16 are pending in the present application. Claims 1 and 16 are independent.

With the exception of the further definition of the program signal as including a PCR (program clock reference) serving as time information, all of the above amendments to the claims are not for the purpose of overcoming any rejection. Instead, these amendments are made to shift from a means plus function claim format to a generic term claim format.

Allowable Subject Matter

Applicants appreciate the Examiner's indication that claims 3-6 and 8-15 would be allowable if rewritten in independent form including all the features of the base claim and any intervening claims. For the reasons discussed below, Applicant now believes that all pending claims are in condition for allowance and earnestly solicit an early indication thereof in the form of a Notice of Allowance.

35 USC 103 Sonoda Rejection

Claims 1, 2, 7 and 16 are rejected under 35 USC 103(a) as being unpatenable over Sonoda (USP 6,557,171). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

The Office Action clearly equates the pre-selection control information (PCI) with the claimed program signal. This is clear from the response to arguments section, particularly statements such as "the reception unit 130 sends the PID to the TS decoder unit 122 to extract the program control information (PCI) corresponding to the PID at step S2014." (March 21, 2005 Office Action, page 3, lines 5-6). Similar statements can be found on page 4, first full paragraph as well as the sentence bridging pages 4-5 of the latest Office Action.

Applicant have further defined the "program signal" to include a PCR (program clock reference) serving as time information so as to further define over the Sonoda patent. More specifically, the PCI is disclosed by Sonoda as including screen element information 402 and program pre-selection and manipulation control information 403. (See Fig. 4 of Sonoda). When displayed, this PCI generates a static image such as that shown in Figure 19C. This static image may also include manipulation control information (virtual buttons that may be selected by the user). As such, the PCI cannot be equated with the program signal as the Office Action suggests. The further definition of the program signal defines over Sonoda's PCI by including a program clock reference that serves as time information. This program clock reference serving as time information permits a moving image to be displayed. In sharp contrast, Sonoda's PCI includes no such program clock reference serving as time information.

Furthermore, the claimed PCR is different from and not suggested by the TDT (time date table) that is multiplexed into the transport stream and used for synchronizing the current time by the time managing unit 132 as described in column 18, lines 64 to column 19, line 16 of Sonoda.

Sonoda utilizes so-called preselection control information (PCI 401) that permits a user to preselect programs. Specifically, the PCI 401 enables viewers to preselect programs while a promotional program is being broadcast (see column 14, lines 45-50).

The preselection control information of Sonoda is further shown in Fig. 4 and includes static screen element information 402 describing certain presentation data that are displayed on the screen. This presentation data is further shown in Fig. 5 and generally involves certain buttons that may be selected by a user to preselect programs for future viewing.

In Sonoda, the PCI is extracted by the TS decoder unit 122 according to the packet ID (PID) specified in the reception control unit 130 (see column 17, lines 42-45). More specifically, the PCI is incorporated within the program mapping table (PMT). When the reception control unit 130 determines that the PMT includes a PCI, then the reception control unit 130 sends the PID associated with the PCI to the TS decoder unit 122. Thus, the TS decoder unit 122 extracts the PCI corresponding to this PID. See column 19, lines 54-59 and the flow chart shown in Fig. 20.

By reading out the PCI, the reception control unit 130 of Sonoda interprets the screen element information and generates the preselection information image and sends it to the reproducing unit 124 (see column 19, lines 60-67). Reproducing unit 124 then superimposes this preselection information image on the original image. Clearly, the preselection information image corresponds to Fig. 19C and is designated by reference number 1903. This preselection information image is then superimposed onto the original image to generate the superimposed static image 1904 shown in Fig. 19D. This permits a user to actually select the episode which has already been preselected in the past.

In sharp contrast, the present invention is not concerned with such a preselection and generation of a preselection information image. Instead, the present invention solves a different problem. Namely, conventional digital broadcast receiving systems store a large quantity of information that is necessary for recording/reproduction in a recording/reproducing information table which is then multiplexed with the digital television signal in a predetermined table form. Upon reception of this signal, conventional systems must use complicated hardware and

methodology since a large number of information types must be rewritten whenever a program is changed.

To solve these problems, the present invention utilizes an elegant method that greatly simplifies the digital broadcast receiver design and methodology. Specifically, the information table is monitored to detect a content change in the information table. This may be done with a very simple structure or method and is claimed as the parameter set portion that is configured to detect content change of the information table on the basis of a predetermined criterion.

In response to a detected content change, the parameter set means sets the program parameter that has changed as the signal extraction parameter.

The above is a fair summary of Sonoda and appears to be largely in agreement with the Office Action's depiction of Sonoda. The claims have been further amended to recite that the signal extraction portion is configured to extract a program signal from the digital broadcast signal on the basis of the signal extraction parameter wherein the program signal includes a PCR (program clock reference) serving as time information. The Office Action relies on Sonoda's PCI and the extraction of the PCI to meet or read on the signal extraction parameter but such an equivalence clearly cannot be made, particularly in view of the amendments made to independent claims 1 and 16. As argued above, the PCI otherwise generates a static image such as that shown in Figure 19C and certainly does not include a program clock reference serving as time information that would otherwise permit a moving image to be displayed. Simply put, Sonoda's PCI simply does not include a program clock reference serving as time information and, therefore, Sonoda fails to disclose or suggest the claimed signal extraction portion configured to extract a program signal on the basis of a signal extraction parameter wherein the

program signal includes a program clock reference serving as time information as recited in independent claim 1. Likewise, Sonoda fails to disclose or suggest the method of independent claim 16 reciting the step of extracting a program signal from the digital broadcast signal based on the signal extraction parameter wherein the program signal includes a PCR (program clock reference) serving as time information.

Thus, according to the claimed invention, merely by detecting a content change in the information table, the claimed invention may simply and rapidly reset the basis for program signal extraction to be the changed program parameter. Sonoda's pre-selection control information simply does not disclose or suggest any such inventive system or method, particularly as recited in the amended claims. The static image generated by the program control information (PCI) does not equate to and does not suggest the extracted program signal extracted on the basis of the signal extraction parameter, particularly when the extracted program signal includes a PCR serving as time information.

All of the above arguments relating to Sonoda contained in the Reply filed October 28, 2004 are hereby incorporated by reference. Applicants respectfully submit that these arguments gain even more force when considered in light of the amendments and arguments made above. Thus, Applicant respectfully requests the Examiner to reconsider all previous arguments in light of the amendments and arguments made above.

For all of the above reasons, taken alone or in combination, Applicant respectfully requests reconsideration and withdrawal of the 35 USC §103 Sonoda rejection.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael R. Cammarata (Reg. No. 39,491) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 

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